



CUMMINGS-MOORE GRAPHITE (O. Product Information

Graphite In Industry

As a result of their association with Asbury, Cummings-Moore has at their disposal supplies of graphite from around the world. This allows us the versatility of supplying many diversified industries with Amorphous, Flake and Synthetic graphite.

Amorphous Graphite:

Amorphous Graphite is generally found in beds or seams consisting entirely of graphite. These seams are formed by the metamorphism of coal or carbon rich sediments near magmatic intrusives. Amorphous graphites have a soft black sheen contrasting with the metallic luster of crystalline vein graphite. The term, Amorphous, is actually a misnomer as all graphites are crystalline in structure. However, those of amorphous graphite are not well defined and are microscopic. Carbon contents range from 60% to 85% in commercially available grades.

Flake Graphite:

consists of flat, platelike particles found in metamorphous rocks such as marble, gneiss and quartz-mica schist. Each flake is separate, having crystallized as such in rock. Flake ore must be crushed and the graphite separated from the gangue. Floatation cells are the most common method. Carbon content ranges from 60% to 96%. Higher purities are available with additional processing, usually acid treatments when purities up to 99.9% are obtainable.

Artificial Graphite:

is man made graphite as opposed to natural graphite as described above. Usually manufactured by using petroleum or other byproduct carbon products bonded into shapes with a carburizing binder and graphitized by high temperature and electrical energy. While more abrasive than natural graphites, its high purity makes it an excellent material for metallurgical and certain chemical applications.

Today, being part of the Asbury Carbons team has allowed Cummings-Moore to expand it's raw material and finished product base. Being part of Asbury, Cummings-Moore has the ability to tap the world resources of any carbonaceous material, one of which is "coconut shell activated carbon". With it's grinding and screening capabilities mentioned

1 of 3 6/27/02 9:47 AM



above, Cummings-Moore now produces and packages "activated carbon" for various applications along with custom grinding for other activated carbon companies.

Staying in step with industry changes and innovations, Cummings-Moore Graphite also supplies other forms of carbon such as Calcined Petroleum Coke, Activated Carbon and Hydrocarbon Binders, all of which can be ground or sized.

Cummings-Moore has the facilities to offer custom grinding, sizing and blending of various materials. These products can be packaged in paper bags, fibre drums, bulk bags and in bulk.

Not only does Cummings-Moore package in large containers, they also have a line of what they refer to as "small package grades". Amorphous and flake graphite are packed in small quantity containers such as one pound and five pound packages as well as custom packaging for other companies, in packages as small as a tenth of an ounce of material.

Industries Served

With our versatile array of products, Cummings-Moore is able to supply large and small consumers in the following industries:

Iron Foundries
Refractories
Cement Additives
Plastics
Lubricants
Packings
Lead Pencils
Paints
Molded Shapes
Brake Linings
Powder Metallurgy

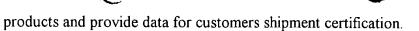
Air Filtration Rubber

Conductive Coatings Drilling Mud Industry
Drilling Industry

Quality and Service

In todays market, quality is a major selling tool. Cummings-Moore and all our personnel are dedicated to the use of statistical process control as a tool toward providing our customers with the best products possible.

Daily production and bag weights are charted enabling Cummings-Moore to generate X-R charts and histograms on each of our



We at Cummings-Moore are dedicated to offering our customers the best quality material and timely deliveries. Our office and plant is located in the southwest side of Detroit Michigan. We also have warehouses strategically located in Birmingham, Alabama; Chicago, Illinois; Houston, Texas; N. Kansas City and Vandalia, Missouri; which enable Cummings-Moore to offer the best delivery and cost savings to our domestic customers as well as our export accounts.

Products	Grades Ast	uny Contact Red	<u>juests</u>
3 7 >1			